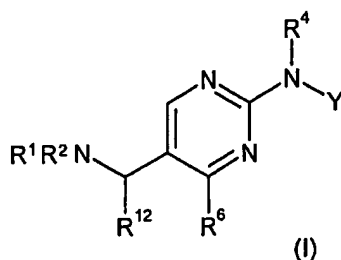


Claims

1. A compound of formula (I);



wherein:

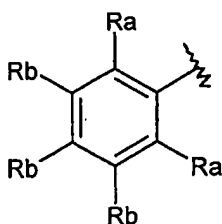
Y is phenyl, unsubstituted or substituted with one, two or three substituents;

R¹ is selected from hydrogen, C₁₋₆ alkyl, C₃₋₆ cycloalkyl, or halosubstituted C₁₋₆ alkyl;

R² is (CH₂)_mR³ where m is 0 or 1;

or R¹ and R² together with N to which they are attached form an unsubstituted or substituted 4- to 8- membered non-aromatic heterocyclyl ring;

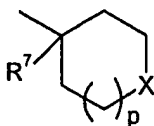
R³ is hydrogen, an unsubstituted or substituted 4- to 8- membered non-aromatic heterocyclyl group, an unsubstituted or substituted C₃₋₈ cycloalkyl group, an unsubstituted or substituted straight or branched C₁₋₁₀ alkyl, an unsubstituted or substituted C₅₋₇ cycloalkenyl, R⁵; or R³ is an unsubstituted or substituted 5- to 6- membered aromatic heterocyclyl group, or group A:



(A)

R⁴ is selected from hydrogen, C₁₋₆ alkyl, C₃₋₆ cycloalkyl, or halosubstituted C₁₋₆ alkyl, COCH₃, or SO₂Me;

R⁵ is



wherein p is 0, 1 or 2, and X is CH₂, O, S, SO or SO₂;

R⁶ is halo, an substituted or unsubstituted (C₁₋₆)alkyl, (C₃₋₆)cycloalkyl, 4- to 7- membered non aromatic heterocyclyl group;

R⁷ is OH, C₁₋₆alkoxy, NR^{8a}R^{8b}, NHCOR⁹, NHSO₂R⁹, SOqR⁹;

R^{8a} is H or C₁₋₆alkyl;

R^{8b} is H or C₁₋₆alkyl;

R⁹ is C₁₋₆alkyl;

Ra is independently selected from hydrogen, fluoro, chloro or trifluoromethyl;

R_b is independently selected from hydrogen, C₁₋₆ alkyl, C₁₋₆ alkoxy, haloC₁₋₆ alkoxy, hydroxy, cyano, halo, sulfonyl, CONH₂, COOH or NHCOOC₁₋₆alkyl;

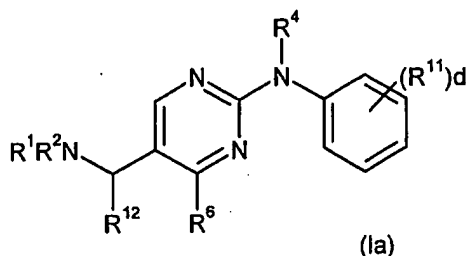
R¹² is hydrogen or C₁₋₆alkyl;

q is 0, 1 or 2;

5 or a pharmaceutically acceptable derivative thereof,

wherein the compound is not (5-[[bis-(2-methoxy-ethyl)-amino]-methyl]-4-trifluoromethyl-pyrimidin-2-yl)-(3-chlorophenyl)-amine or {1-[2-(3-chloro-phenylamino)-4-trifluoromethyl-pyrimidin-5-ylmethyl]-piperidin-4-yl}-methanol, formate.

10 2. A compound as claimed in Claim 1 wherein the compound of formula (I) is a compound of formula (Ia):



wherein;

R¹ is selected from hydrogen, C₁₋₆ alkyl, C₃₋₆ cycloalkyl and halosubstituted C₁₋₆ alkyl;

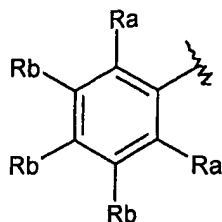
15 R² is (CH₂)_mR³ where m is 0 or 1;

or R¹ and R² together with N to which they are attached form a 4- to 8- membered non-aromatic ring selected from azetidiny, pyrrolidinyl, morpholinyl, piperiziny, piperidinyl, thiomorpholinyl, tetrahydropyridinyl, azapine, oxapine, azacyclooctanyl, azaoxacyclooctanyl and azathiacyclooctanyl any of which can be unsubstituted or substituted by one, two or three substituents selected from C₁₋₆ alkyl, C₁₋₆ alkylOH, C₁₋₆ alkoxy, a hydroxy group, a cyano group, halo, sulfonyl group, methylsulfonyl, NR^{8a}R^{8b}, NHCOCH₃, (=O), -CONHCH₃ and NHSO₂CH₃, C(O)OC₁₋₆alkyl;

20 R³ is hydrogen, 2- or 3- azetidiny, oxetanyl, thioxetanyl, thioxetanyl-s-oxide, thioxetanyl-s,s-dioxide, dioxalanyl, pyrrolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, tetrahydrothiophenyl-s-oxide, tetrahydrothiophenyl-s,s-dioxide, morpholinyl, piperidinyl, piperazinyl, tetrahydropyranyl, tetrahydrothiopyranyl, tetrahydrothiopyranyl-s-dioxide, tetrahydrothiopyranyl-s,s-dioxide, thiomorpholinyl, thiomorpholinyl-s,s-dioxide, tetrahydropyridinyl, dioxanyl, tetrahydrothiopyran 1,1 dioxide, azapine, oxapine, azacyclooctanyl, azaoxacyclooctanyl, azathiacyclooctanyl, oxacyclooctanyl, thiacyclooctanyl, a C₃₋₈ cycloalkyl group, a straight or branched C₁₋₁₀ alkyl, a C₅₋₇ cycloalkenyl or R⁵, any of which can be unsubstituted or substituted by one, two or three substituents selected from C₁₋₆ alkyl, C₁₋₆ alkoxy, a hydroxy group, a cyano group, halo, sulfonyl group, methylsulfonyl, NR^{8a}R^{8b}, NHCOCH₃, (=O), and -CONHCH₃ and when R³ is alkyl it can be phenyl or phenyl substituted by halo, hydroxy or cyano;

30 or R³ is group A or selected from furanyl, dioxalanyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, oxadiazolyl, thiadiazolyl, triazolyl, triazinyl, isothiazolyl, isoxazolyl, thienyl, pyrazolyl, tetrazolyl, pyridinyl, pyrizinyl, pyrimidinyl, pyrazinyl, triazinyl, or tetrazinyl any of which can be unsubstituted or substituted by one, two or three substituents selected from C₁₋₆ alkyl, C₁₋₆ alkoxy, a

hydroxy group, a cyano group, halo, sulfonyl group, methylsulfonyl, $\text{NR}^{8a}\text{R}^{8b}$, NHCOCH_3 , $(=\text{O})$, and $-\text{CONHCH}_3$;



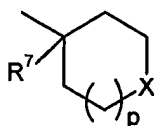
(A)

5

R^{11} is selected from C_{1-6} alkyl, halosubstituted C_{1-6} alkyl, C_{1-6} alkoxy, a hydroxy group, a cyano group, halo, a C_{1-6} alkyl sulfonyl group, $-\text{CONH}_2$, $-\text{NHCOC}_{1-6}\text{alkyl}$, $-\text{COOH}$, $-\text{CH}_2\text{COOH}$, halosubstituted C_{1-6} alkoxy, $\text{SC}_{1-6}\text{alkyl}$ and $\text{SO}_2\text{NR}^{8a}\text{R}^{8b}$;

10 R^4 is selected from hydrogen, C_{1-6} alkyl, C_{3-6} cycloalkyl, or halosubstituted C_{1-6} alkyl, COCH_3 , and SO_2Me ;

R^5 is



wherein p is 0, 1 or 2 and X is CH_2 , O , S , SO or SO_2 ;

15 R^6 is halo, a substituted or unsubstituted (C_{1-6}) alkyl, (C_{3-6}) cycloalkyl, 4- to 7- membered non aromatic heterocyclyl group;

R^7 is OH , C_{1-6} alkoxy, $\text{NR}^{8a}\text{R}^{8b}$, NHCOR^9 , NHSO_2R^9 , SOqR^9 ;

R^{8a} is H or C_{1-6} alkyl;

R^{8b} is H or C_{1-6} alkyl;

R^9 is C_{1-6} alkyl;

20 R^{12} is hydrogen or C_{1-6} alkyl;

Ra is independently selected from hydrogen, fluoro, chloro or trifluoromethyl;

Rb is independently selected from hydrogen, C_{1-6} alkyl, C_{1-6} alkoxy, halo C_{1-6} alkoxy, hydroxy, cyano, halo, sulfonyl, CONH_2 , COOH or $\text{NHCOOC}_{1-6}\text{alkyl}$;

q is 0, 1 or 2;

25 d is 0, 1, 2 or 3

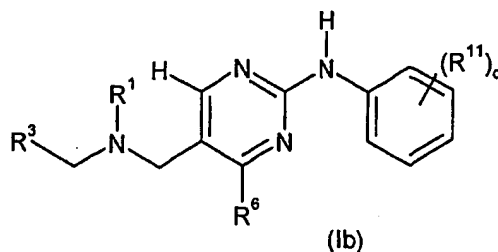
or a pharmaceutically acceptable derivative thereof

wherein the compound is not

(5- $\{[\text{bis}-(2\text{-methoxy-ethyl})\text{-amino}]\text{-methyl}\}$ -4-trifluoromethyl-pyrimidin-2-yl)-(3-chlorophenyl)-amine or $\{1\text{-}[2\text{-}(3\text{-chloro-phenylamino})\text{-4-trifluoromethyl-pyrimidin-5-ylmethyl}]\text{-piperidin-4-yl}\}$ -methanol, formate.

30

3. A compound as claimed in Claim 1 wherein the compound of formula (I) is a compound of formula (Ib):



wherein;

R^1 is hydrogen or methyl;

R^3 is an unsubstituted or substituted 4- to 8- membered non-aromatic heterocyclyl group an
 5 unsubstituted or substituted C_{3-8} cycloalkyl group, an unsubstituted or substituted straight or
 branched C_{1-10} alkyl;

R^6 is an substituted or unsubstituted (C_{1-6}) alkyl, (C_{3-6}) cycloalkyl, or 4- to 7- membered non
 aromatic heterocyclyl group;

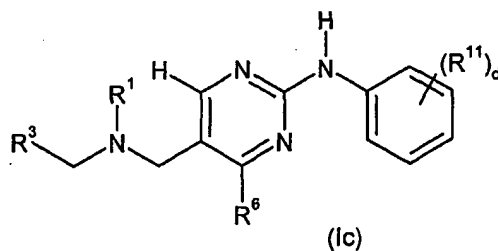
R^{11} is selected from halo, cyano, methyl, trifluoromethyl, methoxy, trifluoromethoxy or
 10 SCH_3 ;

d is 0, 1, 2 or 3;

or a pharmaceutically acceptable derivative thereof wherein the compound is not
 {1-[2-(3-chloro-phenylamino)-4-trifluoromethyl-pyrimidin-5-ylmethyl]-piperidin-4-yl}-methanol,
 formate.

15

4. A compound as claimed in Claim 1 wherein the compound of formula (I) is a compound of
 formula (Ic):

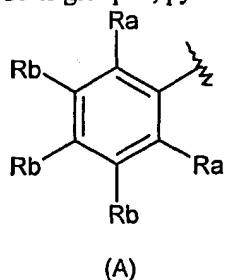


wherein

20

R^1 is hydrogen or methyl.

R^3 is group A, pyridinyl, or pyrimidinyl, any of which can be optionally substituted;



R_a is independently selected from hydrogen, fluoro, chloro or trifluoromethyl;

R_b is independently selected from hydrogen, C_{1-6} alkyl, C_{1-6} alkoxy, halo C_{1-6} alkoxy,
 25 hydroxy, cyano, halo, sulfonyl, $CONH_2$, $COOH$ or $NHCOOC_{1-6}$ alkyl;

R⁶ is an substituted or unsubstituted (C₁₋₆)alkyl, (C₃₋₆)cycloalkyl or 4- to 7- membered non aromatic heterocyclyl group;

R¹¹ is selected from halo, cyano, methyl, trifluoromethyl, methoxy, trifluoromethoxy
SCH₃;

5 d is 0, 1, 2 or 3;
 or a pharmaceutically acceptable derivative thereof.

10 5. A compound as claimed in any one of claims 1 to 4 wherein R⁶ is either cyclopropyl, isopropyl, tert-butyl or trifluoromethyl.

6. A compound as claimed in Claim 1 selected from Example 1 to 82 and 85 to 105.

15 7. A pharmaceutical composition comprising a compound as claimed in any one of claims 1 to 6 or a pharmaceutically acceptable derivative thereof and a pharmaceutical carrier or diluent thereof.

8. A pharmaceutical composition as claimed in claim 7 further comprising a second therapeutic agent.

20 9. A method of treating a mammal suffering from a condition which is mediated by the activity of cannabinoid 2 receptors which comprises administering to said subject a therapeutically effective amount of a compound of formula (I) as claimed in any one of claims 1 to 6 or a pharmaceutically acceptable derivative thereof.

25 10. A compound of formula (I) as claimed in any one of claims 1 to 6 or a pharmaceutically acceptable derivative thereof for use as a medicament in the treatment of pain.